

Application Serial No. 10/785,259
Reply to office action of June 24, 2005

PATENT
Docket: CU-3606

Amendments To The Abstract

Marked-up Version

The marked-up version of the Abstract is to enclosed to aid the examiner in readily identifying the changes:

~~The present invention provides a barrier forming film (A) useful for manufacturing various packaging container, which has a higher barrier formability to prevent permeation of oxygen gas or steam, and a manufacturing method thereof. The barrier forming film of the invention comprises a substrate film (1) having a vapor deposited film (2) of an inorganic oxide, and by applying an annealing treatment thereto to limit the steam permeability within a range of from 2.0 to 0.000001 g/m²·day, and the oxygen permeability, within a range of from 2.0 to 0.000001 cc/m²·day.~~

In manufacturing a barrier-forming film, a vapor-deposited inorganic oxide film is provided on a face of a substrate film. An annealing treatment is applied to the substrate film having said vapor-deposited inorganic film. The substrate film is a resinous film which selected from a group consisting of polyesters, polyamides and polypropylenes. The annealing treatment includes a heating treatment carried out at a temperature within the range from 55 °C to 150 °C in order to cause thermal shrinkage of the substrate film and to increase density of the vapor-deposited inorganic oxide film. The vapor-deposited inorganic oxide film includes a vapor-deposited silicon oxide film or a vapor-deposited aluminum oxide film.

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REMARKS/ARGUMENTS

Reconsideration is respectfully requested.

Claims 1-7 are pending before the present amendment. By the present amendment, claims 2, 4-5, and 7 have been canceled without prejudice, and claims 1, 3, and 6 have been amended. No new matter has been added.

In the office action page 2, the Abstract stands rejected. The replacement Abstract is provided herein, and the examiner's approval for replacement with the current Abstract is respectfully requested.

In the office action page 2, the title stands rejected. In response, the title has been appropriately corrected as follows:

--MANUFACTURING METHOD OF BARRIER-FORMING FILM-AND
MANUFACTURING METHOD THEREOF--

In the office action 3, the specification is objected to for informalities. In response, the suggested amendments have been made to indicate the U.S. patent issuance (Patent No. 6,720,097) to the parent application (Serial No. 10/148,627) of the present application.

In the office action page 3, claims 4-6 stand objected under 37 C.F.R. §1.75(c) as being in improper multiple dependency claim form. In response, the multiple dependency form has been removed from the presently pending claims.

In the office action page 4, claims 1-7 stand rejected under 35 U.S.C. §112, ¶1, as failing to comply with the enablement requirement. In response, claim 1 has been amended to recite --oxide film--. Withdrawal of the rejection is respectfully requested.

In the office action page 4, claims 1-7 stand rejected under 35 U.S.C. §112, ¶2,

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as being indefinite to distinctly claim the invention.

The issues relating to "oxides film" has been made moot by the above, as it has been amended to --oxide film--.

The issues relating to --substrate film-- has been very clear by the following amendment to claim 1:

--wherein said substrate film comprises a resinous film which selected from a group consisting of polyesters, polyamides and polypropylenes--

The support for this amendment is found at least in the specification page 14, the first full paragraph. No new matter has been added.

In the office action page 5, claims 1-3 and 7 stand rejected under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 5,902,638 (Vakil). The "et al." suffix in a reference name, is omitted.

Vakil discloses a method for producing spallation-resistant protective layer of aluminum oxide on high performance Ni- or Co-based alloys. The heat treatment at 900 - 1200°C (Vakil col. 4, line 10) after deposition of aluminum oxide film is to convert amorphous aluminum oxide into a stable form of alumina (Vakil col. 4, lines 11-24).

The subject matter of claim 1, as amended, is a manufacturing method of a barrier-forming film wherein a resinous substrate film a face of which covers with a vapor-deposited inorganic oxide film is subjected to annealing treatment at a temperature within the range from 55 °C to 150 °C in order to cause thermal shrinkage of the substrate film and to increase density of the vapor-deposited inorganic oxide film.

Therefore, Vakil is substantially different from the presently claimed invention in many aspects, particularly in the areas of the kind of substrate (i.e., "metal alloy" of the

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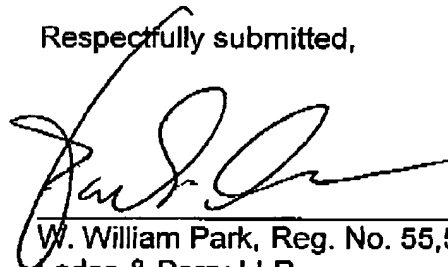
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cited prior art reference vs. "resin" of the presently claimed invention), annealing temperature (i.e., "900 - 1200 °C" of the cited prior art reference vs. "55 °C to 150 °C" of the presently claimed invention), and the purpose of annealing treatment ("conversion of crystallinity" of the cited prior art reference vs. "thermal shrinkage of the substrate film and density enhancement of the deposited inorganic oxide film" of the presently claimed invention).

Thus, the presently claimed subject matter, in particular the amended claim 1, is not taught suggested by Vakil.

For the reasons set forth above, the applicants respectfully submit that claims 1, 3, and 6, now pending in this application, are in condition for allowance over the cited reference(s). Accordingly, the applicants respectfully request reconsideration and withdrawal of the outstanding rejections and earnestly solicits an indication of allowable subject matter. This amendment is considered to be responsive to all points raised in the office action. Should the examiner have any remaining questions or concerns, the examiner is encouraged to contact the undersigned attorney by telephone to expeditiously resolve such concerns.

Respectfully submitted,



Dated: December 23, 2005

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